

MITE OF GENUS *ERIOPHYES* ASSOCIATED WITH MALFORMATION
OF LEAVES OF *EUCALYPTUS STRICTA*.

By W. B. GURNEY, F.E.S.

(One Text-figure).

[Read 27th August, 1924.]

This note contains the description of the mite which caused a red coloration in leaves and twigs of *Eucalyptus stricta*; the chemistry of the pigment produced has been investigated by Dr. J. M. Petrie (see pp. 386-394).

On the terminals of branches of *Eucalyptus stricta* at Mount Wilson on the Blue Mountains, distortion of the twigs and young leaves occurs frequently. This consists of thickening of the young terminal leaves and general reddening of the tissue, especially of the aborted leaves. The whole effect seems to be to stultify the growth and cause dense clusters or tufts of small, narrow, deep reddish leaves, giving a "Witch's Broom" appearance to the terminals. These malformations are at once noticeable at a distance on the saplings of this species of *Eucalyptus* (see Plate xlv.).

I gather from Mr. W. F. Blakely, of the Botanic Gardens, that other species of *Eucalyptus*, both on the Blue Mountains and near Sydney, have been noticed with somewhat similar reddish tufts of discoloured and distorted tips.

Examination of these reddish tufts collected for me from *E. stricta* in December, 1923, and in March, 1924, at Mount Wilson revealed the presence, in great numbers, of extremely small mites of the Family Eriophyidae, apparently of a new species of the genus *Eriophyes*. The immature stages were much smaller and exhibited fewer annular rings on the abdomen. The normal shape is elongate, cylindrical, and gradually tapering to both extremities.

The mouth parts include a pair of minute bristle-like mandibles and there is a pair of 3-jointed palpi. The species of this family of mites are minute, varying, according to Dr. Nalepa, from 80 to 280 μ and they characteristically cause deformities on the plants they infest. Their attacks often cause furry-looking spots called an erineum, and sometimes definite dimple, blister-like, or even elongate galls are found. This particular species frequents the bases and the surface of the leaves, especially the inner faces of the young leaves, affecting their growth and causing unnatural thickening and reddening of those leaves.

Eriophyes pyri, the Pear Leaf Blister mite, and *E. vitis*, causing "Erinose" of the grape vine, are well known pests of these hosts. I can find no reference to a species of this genus infesting *Eucalyptus*. Dr. Nalepa records one species

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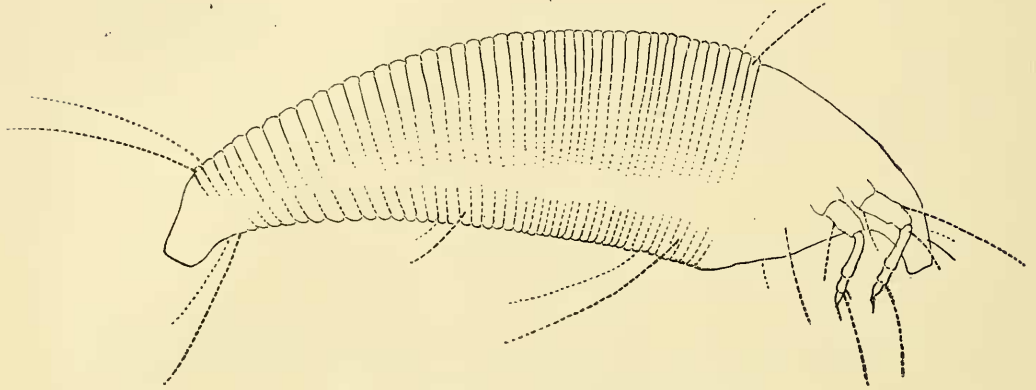
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only of the Myrtaceae, viz., *Prunica granatum*, as being affected by an *Eriophyes* out of 144 species of this genus described by him.

I have to acknowledge gratefully the excellent figure of this minute form which Mr. E. H. Zeck has drawn to illustrate this description.



Eriophyes eucalypti, n.sp. (x 590)

Drawn by E. H. Zeck.

ERIOPHYES EUCALYPTI, n.sp.

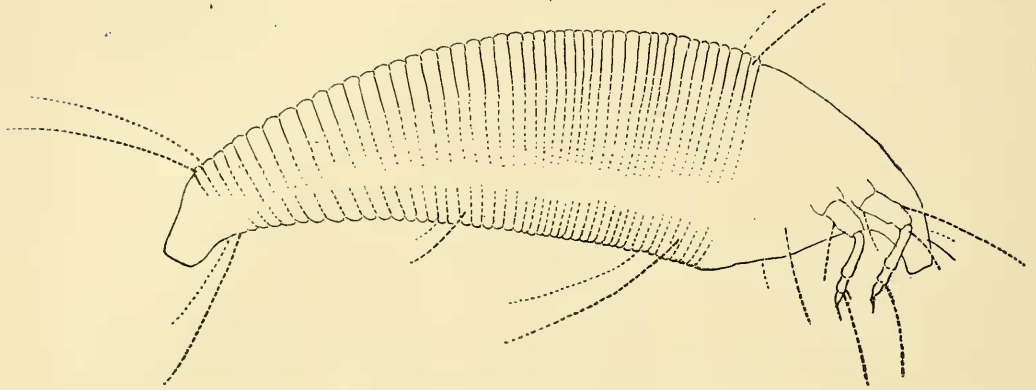
The body elongate, cylindrical, tapering. Thoracic shield inconspicuous. Striae punctate, 42 to 52. Setae all present (except accessory setae, not noticed). Ventral seta 1 twice length of ventral seta 2. Legs medium size, basal segments relatively thick, segments 3 to 5 relatively thin. Claw longer than feathered hair which is 4-rayed. Length about 170 μ .

References.

- BANKS, Nathan.—The Acarina or Mites. *Report U.S. Dept. Agric.*, No. 108, 1915.
 HODGKISS, H. E.—New Species of Maple Mites. *Journ. Econ. Ent.*, vi., 1913, 420-424.
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